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GAU-1636 \$

Express Mail No.: EV 335 858 557 US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Rolf Menzel

Confirmation No.: 5780

Serial No.: 09/920,118

Art Unit: 1636

Filed: July 31, 2001

Examiner: Konstatina T. Katcheves

For: METHODS AND  
COMPOSITIONS FOR  
DIRECTED GENE ASSEMBLY

Attorney Docket No.: 10424-003

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In accordance with the continuing duty of disclosure imposed by 37 C.F.R. § 1.56 and § 1.97 to inform the Patent Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of any claim of the application, Attorneys for Applicants hereby invite the Examiner's attention to the references B05-B21 and C01-C16 listed on the attached revised form PTO 1449 entitled "List of References Cited by Applicant." Copies of references B05-21 and C01-C16 are submitted herewith.

This Information Disclosure Statement is being submitted in two counterparts. This counterpart, submitted under Express Mail No. EV 335 858 557 US, accompanies references B05-B21 and C01-C16. A second counterpart, submitted under Express Mail No. EV 335 858 543 US accompanies references A01-A47 and B01-B04.

Identification of the listed references is not meant to be construed as an admission of Applicants or Attorneys for Applicants that such references are available as "prior art" against the subject application. Consequently, Applicants respectfully decline to use form PTO-1449, since this form identifies all of the references cited therein as "Prior Art." As an alternative, Applicants submit herewith a "revised form PTO 1449" entitled "List of References Cited" instead of "List of Prior Art Cited".

Applicants respectfully request that the Examiner review the foregoing references and that the references be made of record in the file history of the application.

Pursuant to 37 C.F.R. § 1.97(c)(2), since this Supplemental Information Disclosure Statement is being submitted after the first Office Action on merits but before a final Office Action under 37 C.F.R. § 1.113, a fee of **\$180.00** is believed to be due. Please charge the required fee to Pennie & Edmonds LLP Deposit Account No. 16-1150. A copy of this sheet is enclosed.

Respectfully submitted,

Date: November 21, 2003

Nikolaos C. George 39,201  
Nikolaos C. George (Reg. No.)

By: Muna Abu-Shaar  
Muna Abu-Shaar  
Limited Recognition Under 37 C.F.R. § 10.9(b)  
Copy of Certificate Enclosed

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LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	ATTY DOCKET NO. 10424-003-999	APPLICATION NO 09/920,118
	APPLICANT Menzel	
	FILING DATE July 31, 2001	GROUP 1636

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	B05	WO 00/28018	5/18/2000					
	B06	WO 00/28017	5/18/2000					
	B07	WO 00/28008	5/18/2000					
	B08	WO 00/20573	4/13/2000					
	B09	WO 00/18906	4/6/2000					
	B10	WO 00/09727	2/24/2000					
	B11	WO 00/09682	2/24/2000					
	B12	WO 99/65927	12/23/1999					
	B13	WO 99/29902	6/17/1999					
	B14	WO 99/23107	5/14/1999					
	B15	WO 98/42832	10/1/1998					
	B16	WO 98/42728	10/1/1998					
	B17	WO 98/31837	7/23/1998					
	B18	WO 98/27230	6/25/1998					
	B19	WO 97/07205	2/27/1997					
	B20	WO 95/22625	8/24/1995					
	B21	WO 93/19172	9/30/1993					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	C01	Chang et al., 1999, "Evolution of a cytokine using DNA family shuffling", Nature Biotechnol. 17:793-797
	C02	Crameri et al., 1998, "DNA shuffling of a family of genes from diverse species accelerates directed evolution", Nature 391:288-291
	C03	Evens and Wichter, 1993, "Biotechnology: an introduction to recombinant DNA technology and product availability", Ther. Drug Monit. 15:514-520
	C04	Kobayashi and Inouye, 1992, "Functional analysis of a chaperone: mutational hot spots in the subtilisin propeptide and a second site suppressor mutation within the subtilisin molecule", J. Mol. Biol. 226:931-933
	C05	Kuchner and Arnold, 1997, "Directed evolution of enzyme catalysts", Trends Biotechnol. 12:523-530
	C06	LeBlanc et al., 1998, "Genetic transfer methods for <i>Streptococcus sobrinus</i> and other oral streptococci", Meth. Cell Sci. 20:85-93
	C07	Li et al., 1995, "Functional analysis of the propeptide of subtilisin E as an intramolecular chaperone for protein folding. Refolding and inhibitory abilities of propeptide mutants", J. Biol. Chem. 270:25127-25132
	C08	Manganelli, 1998, "Insertion vectors for construction of recombinant conjugative transposons in <i>Bacillus subtilis</i> and <i>Enterococcus faecalis</i> ", FEMS Microbiol. 168:259-268
	C09	Marrs et al., 1999, "Novel approaches for discovering industrial enzymes", Curr. Opin. Microbiol. 2:241-245
	C10	Oliphant et al., 1986, "Cloning of random-sequence oligodeoxynucleotides", Gene 44:177-183
	C11	Piotukh et al., 1992, "Design of hybrid metalloproteinases from <i>Bacillus</i> ", Molekulyarnaya. Biologiya 26:601-604 (in Russian with English abstract)
	C12	Pompon and Nicolas, 1989, "Protein engineering by cDNA recombination in yeasts: shuffling of mammalian cytochromeP-450 functions", Gene 83:15-24

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	C13	Stemmer, 1994, "Rapid evolution of a protein <i>in vitro</i> by DNA shuffling", Nature <u>370</u> :389-391
	C14	Stemmer, 1994, "DNA shuffling by random fragmentation and reassembly: <i>In vitro</i> recombination for molecular evolution", Proc. Natl. Acad. Sci. USA <u>91</u> :10747-10751
	C15	Thykjaer et al., 1997, "Gene targeting approaches using positive-negative selection and large flanking regions", Plant Mol. Biol. <u>35</u> :523-530
	C16	Wackett, 1998, "Directed evolution of new enzymes and pathways for environmental biocatalysis", Ann. NY Acad. Sci. <u>864</u> :142-152

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with <b>MPEP 609</b>; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>	